**Senior Design 2018-2019**

**Project Transition Plan**

**Senior Design – Speedway Motors**

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| PREPARED BY: | Derek Vogel |
| DATE: | 3-7-19 |

**Project Overview and List of Expected Deliverables**

The overall goal of this project was to provide an iOS application for Speedway Motors. Included in the project were 5 pieces of functionality specified by Speedway Motors at the beginning of the year. Those included are: a live chat integration using the ZenDesk SDK which is what Speedway uses, Curbside Pickup, FAQ and Knowledge Base using the ZenDesk SDK, promotional push notifications, and to link out to the respective website. This was done as Speedway Motors have not been able to create a mobile application for their company, and our job was to create this application and its features for them.

In doing so, we have developed most of an application that fulfills these requirements. As of March 7th, we have completed the Live Chat, FAQ, links out to the website, and most of the Curbside Pickup functionality. The live chat and FAQ both use the same family of SDKs, which is the ZenDesk SDK. The Curbside pickup functionality was created using tables, the Google Maps Cocoapod. We have also created a home page that contains the links out to the website, along with an image slideshow containing promotional information. All of this work has been done using xCode and our code is attached to our team’s Github repository.

**Expectations of Transition**

Since our solution is not going to be released to the app store by the time the project comes to an end, the overall goal of the transition is to get all of our code and documentation to the sponsor so that they will then be able to use it. The overall goal is to, when the semester comes to a close, is create documentation detailing each portion of the project and its features, how to deploy it, how to install external pod libraries, and other miscellaneous information such as how to interact with user flags within the plist file. For the deployment, our team will need to have an extensive hand off meeting towards the end of the semester explaining how to access and manipulate all of the data within. For training, the staff member we hand it off to will need to learn how to use Swift outside of the basic information we will provide them, and having access to xCode, the ZenDesk SDKs, and other details we find. We will be discussing with Speedway this next week as to who we need to talk to and who will take over running the application once we are done. Since the application by the time of the end of the semester will not be released onto the app store, outside of handing them our code and documentation, there isn’t much else in the way of major deployments. However, some information will need to be changed, such as the addition of the login and order reference API and switching the live chat key to be attached to their servers. In general, the goal of the transition is to go over all of the processes that the application completes, and while the sponsors know how the application works through weekly sponsor meetings, none of them really know about how the inner workings of the applications work. The main goal of the transition is to try and bridge that gap so that when they receive the application the sponsor already knows how to manipulate it. Outside of the deliverables for Senior Design, we will need to compile a more extensive installation and deployment document as there are several intricacies that need to be addressed, such as pod installation and manually setting location flags. In this document, we’d also show where to input their proprietary information, like the live chat key to their servers, and major changes that will be needed to successfully deploy the application. In addition, they will also receive documentation on how to actually deploy the app onto a phone for user testing, but most of that information will be held within the installation and deployment guide.

**Timeline**

**Timeline Activities Identified**

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| --- | --- | --- | --- |
| *Activity* | *Description* | *Date or Date Range* | *Owner* |
| Technical Product Overview | Here we will go through the technical aspects of the application with the product recipient, and explain how each of the pieces of functionality work | By April 1st | Derek Vogel |
| Testing Overview | Here, we will go over how to deploy the application for user testing. In this, we will also go over the normal use cases for each piece of functionality, and possible errors in each. | Within two weeks of the technical product overview | Derek Vogel |
| Final Deployment Checklist | With the sponsor, we will go over and give them a checklist for all of the changes that are needed to be made to merge with the Speedway System | Between R6 and the Senior Design Showcase. | Derek Vogel and Hussain Al-Lawati |

**Testing**

When it comes to testing, the main two types of tests we use are unit tests and user tests. We have been giving the sponsor a version of the app every week for user testing and once the product is deployed, it can be used freely without staying attached to the deployment device. Outside of this, we also have unit tests that demonstrate the normal use cases for using the application. While the sponsor may need to do some usability tests by themselves once the project is completed, for the most part all of the required testing will be happening on a weekly basis going on now until the completion of the project.

**Training**

For training, one of the sponsors will need some basic knowledge about Swift. For simplicity sake, we will try to find someone with experience in C or C#, as swift is derived from C and is therefore very similar. In addition to this, as a team we will need to go over how each of the pieces of functionality work and basic information that will be required to make the application work. More about this will be described in technical training.

**User Training**

For the user, much of the application is self-explanatory and there are UI flags within the application to help the user through it. However, some explanation will need to exist for some of the application’s more complex features, such as the Curbside Pickup. Video demos or an instruction document would be required to explain how it works, as there are several intricacies involved in the Curbside Pickup.

**Technical Training**

As mentioned before, the product recipient will need tobe familiar with how to use Swift. This general knowledge we likely wouldn’t be able to do as it would take time away from our development, but we are looking for one of the sponsors with experience in C and C# to help bridge that gap since they are fairly similar. In addition we will need to explain how the UI and code interact and which interactions are the most important and are subject to change. We will also need to transfer ownership of our repository to its new source so they can access the code. In that meeting, we will also go over the UI portions and how they match up with our specified classes and links that exist within them. The overall goal of holding this training meeting is by the end the product recipient will be able to understand what’s going on on each screen and source file. We will also go over how to interact with external libraries such as ZenDesk, Google Maps, and JSON communication within Swift.

**Training Tasks Identified**

|  |  |  |  |
| --- | --- | --- | --- |
| *Training Needed* | *Description* | *Person to be trained* | *Status* |
| Learn Basic Swift | The product recipient will need to learn the basics of Swift, including how to make ViewControllers, interacting with components in View Controllers, and basic JSON knowledge | TBD | In Progress |
| Project Technical Overview | Once the recipient has a basic knowledge of Swift, we will go over each of the classes and UI controllers and explain in detail how they work. Once this is done, the recipient will be able to make basic manipulations to the source code to make changes such as changing labels based on JSON input. | TBD | In Progress |
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**Supporting Artifacts**

The artifacts required for this transition will be an extensive Installation and Deployment Guide, which will detail a step by step process on how to both deploy the application onto a device, and make changes to the code so that it is attached to the Speedway servers. We will also create a user deployment guide, which details both how to deploy the application and how to use it within the context of the user. This will include a step by step process on how to correctly interact with each of the application’s core features. Another artifact will be the known bug reports and the status of each of these bugs that we have encountered. We will also have a compilation of our backlog containing pieces of functionality that we weren’t able to get to.